NATIONAL PRESS CLUB LUNCHEON WITH FDA COMMISSIONER SCOTT GOTTLIEB

SUBJECT: THE FDA'S AGENDA

MODERATOR: ANDREA SNYDER EDNEY

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ANDREA SNYDER EDNEY: [sounds gavel] Welcome to the National Press Club, the place where news happens. I'm Andrea Snyder Edney. I'm part of Bloomberg's breaking news desk, and I am vice president of the Club. Before we get started, I'd like to remind everyone to please silence your phones. For our viewing and listening audience, please feel free to also follow the program on Twitter using the hashtag #NPCLive.

Now it's time to introduce our head table guests. I'd like to ask you to please hold your applause until all of the guests are introduced. And guests, I'd like each of you please to stand briefly as your name is announced.

So from your right, we have Sara Reardon, reporter for *Nature* magazine; Tamara Hinton, founder & chief strategist at Communicado PR and an NPC Headliners member; Carly McWilliams, senior advisor to the FDA Commissioner; Maureen Groppe, a Washington correspondent with *USA Today*; Jennifer Rodriguez, assistant commissioner for media affairs at the US FDA; Dina Fine Maron, medicine and health editor for *Scientific American*; Kathleen Quinn, senior advisor to the FDA Commissioner; and Lisa Matthews, vice president at Hager Sharp and co-leader of the National Press Club Headliners team.

Skipping over our guest for a moment, we have Bill Pierce, senior director of APCO Worldwide and the National Press Club Headliners member who organized today's event; Alison Fitzgerald Kodjak, health policy correspondent for NPR; Jim Spencer, a Washington correspondent for the *Minneapolis Star Tribune*; Ferdous Al-Faruque, reporter for MedTech Insight; and Dr. Charles Sneiderman, health and science correspondent for AudioVideo News.

Thank you all for joining us. [applause]

I'd also like to take one moment to acknowledge additional members of the Headliners team responsible for organizing today's luncheon: Betsy Fischer Martin, Lori Russo, Heather Forsgren Weaver, and Press Club staff liaison Lindsay Underwood. Thank you all.

For our C-SPAN and public radio audiences, please be aware that in the audience today are members of the general public. So any applause or reaction that you may hear is not necessarily from the working press.

Being a successful Commissioner of the US Food and Drug Administration requires a combination of skills that is not easy to find. The FDA is an expert agency. It requires a substantive expert in medicine and health. The FDA is a government agency, so it requires someone who knows how to navigate the bureaucratic maze that is Washington. The FDA regulates business and 25% of the consumer goods sold in the US. So it requires someone who knows how the private sector works. And the FDA employs about 17,000 people, so it need someone who knows how to manage a far-flung and diverse organization.

Dr. Scott Gottlieb, the 23rd FDA Commissioner, is the man who's taken on this challenge. His experience checks a lot of boxes. First, he has known government from the inside. From 2005 to 2007, Dr. Gottlieb served as the FDA's deputy commissioner for medical and scientific affairs, and from 2003 to 2004, he was a senior advisor to the FDA Commissioner.

In his work at the FDA, he also worked on implementation of the Medicare drug benefit as a senior advisor to the administrator of the Centers for Medicare and Medicaid Services. In 2013, Dr. Gottlieb was appointed to serve on the Federal Health Information Technology Policy Committee, which advises the Department of Health and Human Services on healthcare information technology.

Immediately prior to his current appointment, Dr. Gottlieb was a resident fellow at the American Enterprise Institute, which seeks to study how government can efficiently and effectively interact with the private sector. And he served as a clinical assistant professor at New York University's School of Medicine in Manhattan, where he also practiced medicine as a hospitalist physician.

Many of the issues and challenges facing the FDA are not new to Dr. Gottlieb. He has authored numerous commentaries on healthcare for publications including the *Wall Street Journal, Forbes,* the *Washington Post*, as well as scholarly journals. He also has a great deal of experience working with various healthcare companies over the years.

Dr. Gottlieb graduated from Mount Sinai School of Medicine where he completed a residency in internal medicine at the Mount Sinai Medical Center. His undergraduate degree is from Wesleyan University where he studied economics.

Dr. Gottlieb has said the Agency should increase efficiency and consistency in the review process of drugs and devices, address the opioid crisis, and increase competition as a mechanism to make pharmaceuticals more accessible. These and other matters for which the FDA is responsible are issues that are crucially important to the country. The speed with which the FDA determines drugs and therapies as safe and allows them to reach those who need them changes people's lives.

We are honored to have Dr. Gottlieb here with us today to explain how he is helping the FDA fulfill these responsibilities. Thank you, Dr. Gottlieb. [applause]

COMMISSIONER SCOTT GOTTLIEB: Thanks a lot. I appreciate the opportunity to be here today. I want to start by extending my apologies for canceling my earlier appearance at the Press Club. I had to travel down to Puerto Rico that day on urgent business to assess the impact of Hurricane Maria on FDA's facility in San Juan and on our staff and on the people of Puerto Rico.

I can tell you when I arrived at the FDA's facility in San Juan, I witnessed the emotion of the assembled staff when one of FDA's team members, who nobody had heard from since the storm, showed up for our meeting. Her colleagues had feared the worst and they were overcome to see that she was unharmed. She had been tending to her own destroyed home and her displaced family, and it was her first contact with the FDA team.

The destruction down there that I saw was profound, and the despair widespread. The stories I heard from FDA's team made the ongoing hardships very clear to me. They've all stood their posts, however. They've been working day and night to help Puerto Rico's medical product manufacturing get restarted. Even as their homes were destroyed and most of the island remained without power, our team has made 130 firm visits so far to help manufacturing sites get restarted. In 113 of the visits, they were able to make contact with the firm. And in 99 of the cases, the firms were operational.

This is a monumental task given the logistical challenges they face in moving around the island and the personal challenges that they face at home. And I'm very proud of their effort, and I'm deeply moved by their dedication.

I want to focus my remarks today on some of the efforts we've been undertaking at FDA when it relates to our medical product development process. I've been at FDA for six months now as the Agency's Commissioner, but as some of you know I'm not new to FDA. This is my third time serving at the Agency. I've held three different positions at FDA during a span of almost 15 years.

In between my roles at FDA, I worked in the private sector. And the chance to see FDA's work from both the inside and the outside has shaped my approach to my current role and shaped my perspective and my understanding of what I think inspires FDA's unique mission. From this vantage point now as Commissioner, I can tell you with certainty that FDA is a mission-driven organization, motivated by a very unique esprit de corps. There's a shared sense of public health mission that animates the Agency's work. It might sound quaint

in some quarters to say that your job is to protect and promote the public health. But at FDA, people voice this call to duty without a hint of irony.

It's this spirit of mission that inspires us. When people want to know about the Agency, they often ask how we achieve our mission, and most go directly to try to understand the "what" – what is it that we do? But that's the wrong question to ask. The right question to ask, why does FDA do what it does. I want to focus my remarks today on the "why," why FDA does the work we do to describe the heart of our mission. To understand FDA is to understand why we do what we do. But to answer the "why," I'd start by asking why have an FDA at all?

We have an FDA to help make it easier for people to be a parent or a caretaker and improve their lives. The FDA exists to empower people to make choices and decisions about their own health and the health of their families, to give people access to safe and effective technologies that can provide them with meaningful choices when they face serious illness, and to offer hope that they can cure an acute disease or, more reasonably, manage a chronic one, and to protect them from potential harms.

That "why" also describes the foundation of American public health. Simply put, our mission and the mission of public health is to help people live up to their full potential. That "why" is to advance the health of our nation and this influence is central to our flourishing.

The question of why we do what we do is central to the organizational and policy reforms that we're undertaking at FDA; for instance, when it comes to our medical product review programs. I want to highlight one particular idea today. It brings to life a broader change that's under way in our organizational approach to new medical product review.

We're changing how we organize ourselves as part of the medical product review process and moving away from a structure that had people working in discrete organizational units that often operated as independent entities, rather than an integrated team that functioned together to share best practices and knowledge. Instead, we're evolving toward a more team-based approach.

This approach will integrate people from different disciplines and across different stages of the lifecycle of a product. From the pre- and post-market phases we're working toward a common public health goal. In most cases, that immediate goal will be the review of a new product, but the ultimate goal is to facilitate a fluid and dynamic team environment that fosters a deep understanding of these products across the full continuum of the pre- and post-market phases.

I believe that these changes will elevate the role of our clinical and scientific experts to take a more universal view of the products they evaluate, a role where they can take more stewardship of products over their entire lifecycle, from the initial product application, to its review by FDA, to the approval and safe use of a product by patients and providers.

Our experts are our clinical and scientific officers. They must have a stewardship over

the products they evaluate that extends throughout the entire product lifecycle. That's their commitment to public health.

The connection between the products we regulate and the lives we seek to improve over time is what first brought many to FDA. The benefit that people ultimately derive from a new product after it's approved and the risks they might encounter in the ordinary routine of clinical medicine is our shared responsibility and obligation.

It's the outcome that expresses why we do our work. And so, the same commitments that stir our efforts before a product is approved for use are equally important after it's made more widely available. We need each of our medical and scientific experts to have more opportunity to extend their expertise and leave their mark over the full duration of a product's lifecycle, rather than at just one stage.

Part of our effort to modernize the structure of our review teams is as much a cultural change as it is an organizational one. I'll focus on these changes first as they relate to medical devices, where this modernization is embodied in the creation of a total product lifecycle office in our device center. This new structure will consolidate many of the current aspects of product review into a new team-based approach. Our clinical and scientific staff is comprised of some of the leading experts in their fields. To maximize their effectiveness and their efficiency and fully leverage and integrate their knowledge and expertise into product review, we're changing from an individual-centric approach to a team-based approach.

It's key that our organizational structure supports that purpose, but that's not always the case today. Instead, the current organization often fosters intellectual and managerial silos. It splits pre-market and post-market functions into separate offices that don't always talk to one another as much as they should. It places staff into hierarchical structures and a management chain.

This makes it more difficult to share information and to hand off work between offices. For example, between our compliance officers and our pre-market experts, often expert input across different parts of the review function is sought through consults rather than an ongoing dialogue offered as part of an integrated review team.

One of the key purposes of our new approach is to make information sharing easier. Reviewers, compliance officers and other experts will look at the product's total lifecycle rather than different staff looking at different devices at different stages of their development and commercialization. Regulatory oversight will span the continuum of pre-market and post-market functions and product evolution. The aim is to make sure that the people with expertise in how a product works can also inform those who are monitoring its continued performance after it's approved for use by patients, and vice versa.

We're also pursuing similar organizational changes when it comes to new drugs. These modernizations have the same public health goals as those embodied in the new efforts related to medical devices. Under the leadership of Dr. Janet Woodcock, the Office of New Drugs is evaluating a series of structural changes to address how new science is changing the

nature of how drugs are developed. The Center is piloting the creation of one common shared review memorandum. This will ensure early cross-disciplinary interaction among scientists and clinicians who have specialized knowledge in disease that inform product review. These interactions have become more critical because fields such as genomics, human factor analysis, advanced modeling, immunology, and others have become integral parts of the drug review process. A single review memorandum will also be much more accessible to the biomedical research community.

At the same time, we're evaluating the certain of more disease-specific offices as part of our more modern approach to the Office of New Drugs. The goals are to provide stakeholders with a single point of contact and allow synergies and surge capacities within offices.

The broader community often measures FDA productivity by its adherence to review goals. These are the timelines that are embodied by our deadlines negotiated as part of user fee agreements. These are important metrics for measuring our organizational efficiency, and we intend to hit these commitments. But goal dates aren't always a good approximates[?] for our public health impact. Our impact can best be measured by the completeness and the quality of our clinical and scientific work before and after a new product is approved, by the safe and effective use of medical technology that we help facilitate, and how we are advancing products that also help advance people's health.

The central tenet of these new team-based approaches is to increase cross-disciplinary collaboration. The goal is to make sure decision-making at every stage of a product's review is more fully informed by scientists and clinicians with very discrete and deep areas of expertise.

This gets me back to the "why" of our mission. It isn't simply to meet a user fee goal or approve more novel products. It's to make sure we're having meaningful impact on people's health and positively impacting their lives. The impact of our work is becoming especially palpable as we see more products coming to market that have transformative and even curative effects on vexing diseases.

The "why" of our work is deeply expressed in a lot of other areas of our portfolio. The most prominent, I believe, are FDA's efforts to impact American's crises of addiction. This goal is very clearly embodied in our new initiative on the regulation of tobacco and nicotine. The nicotine in cigarettes doesn't directly cause tobacco-related cancer, lung disease or heart disease, but the powerfully addictive nature of the delivery of nicotine in combustible cigarettes makes tobacco use the leading cause of preventable death in the United States.

So we're putting nicotine at the center of our regulatory strategy. We're taking steps to render combustible cigarettes minimally or non-addictive. This could prevent future generations of kids from becoming addicted to cigarettes, the deadliest form of nicotine delivery. And we've said our goal is to issue an advanced notice of proposed rulemaking related to the regulation of nicotine before the end of this year.

At the same time, we're putting through an appropriate series of regulatory gates new technology that's emerging that could deliver nicotine to those adults who still want or need satisfying levels of this drug, but that can enable them to get that nicotine through products that may pose far less risk than smoking combustible cigarettes. We need to make sure these new products, like electronic nicotine delivery systems, are properly regulated. For example, if they claim the product modifies the risk to users, they must prove that they can significantly reduce risk if they want to make those claims.

We're also focused on another devastating addiction crisis in America, the addiction to opioids. As you know, this is a top priority of the Trump administration. The FDA has an important role to play over every aspect of this crisis. But two of our key obligations are FDA's influence on the rate of new addiction and our impact on the availability and the use of treatments that can help people live lives of sobriety.

We know that many people who become addicted to opioids will become medically addicted, and their first exposure will be through a lawful prescription. For most people, that first prescription will be for an immediate-release formulation of an opioid drug. Science-based evidence shows that the key to reducing new addiction to is to reduce exposure to opioid drugs in the clinical setting. This means making sure that fewer prescriptions are written and shorter durations of doses are dispensed. We recently released a Federal Register notice that I'll begin a process at FDA to evaluate and perhaps implement steps to reduce exposure to opioids through our influence on prescribers. Some of the steps that we're evaluating are how we require doctors to be educated, our role in regulating how products are packaged, and how doses are dispensed based on indication, among other influences we believe we can have on bending the rate of new addiction.

As another part of our work to address the opioid epidemic, we're reconsidering how we address risk and benefit to make sure that we're taking appropriate measure of the risk associated with misuse and abuse of opioid drugs, both as part of our pre- and post-market review. As one part of that effort, we requested earlier this year that Endo Pharmaceuticals withdraw its reformulated Opana ER from the market based our analysis of the risks associated with that drug's illicit use. Now, I read recent media reports that stated that Endo is participating in a relaunch of the old version of Opana ER. This is the version of the drug that Endo had previously withdrawn from the market when it launched its reformulated version of Opana because that older version didn't purport to have abuse-deterrent features.

I don't want to speak about our regulatory intentions with respect to any specific drug, but I do want to address oxymorphone products more generally. FDA previously commissioned a study to formally evaluate whether oxymorphone, an active ingredient in certain opioid drugs, has qualities that make it more likely to be abused than other Schedule 2 opioids, including through illicit routes of administration, such as snorting and injection. I'm now seeing that study for the first time today. If the scientific results of this study demonstrate that this ingredient has qualities that make it more likely to be abused, FDA will consider taking regulatory actions that could limit patient exposure to oxymorphone.

In closing, the aim of the organizational policy changes I discussed today is to empower the scientific and clinical experts at FDA with a primary objective in mind – to more fully engage and inspire their work day in and day out to solve similar public health challenges. Our goal is to make it simpler for our scientists and physicians to pursue and accomplish these goals. By working as teams, by sharing different expertise, we'll be more closely aligned as an organization around a common ambition – to enable people to have more opportunities, to use diets and novel medical products to improve their lives.

That's the "why" of our work. It's the common thread that links our shared goals and it's the principle that underlies our public health mission. Thanks for the opportunity to join you today. [applause]

MS EDNEY: Thank you, Dr. Gottlieb. We have some questions from the audience. You've already implemented a lot of changes at the FDA to attempt to ease the drug and device development process. Are there more changes coming, or have you already laid out most of your plans?

COMMISSIONER GOTTLIEB: Well, we've talked a lot about trying to make the drug and medical device development process more efficient. So we're not talking about FDA review times here. FDA's review process and the review times are actually exceedingly efficient. We review the vast majority– I think upwards of 90% of all NMEs are reviewed within the user fee goal dates, and these fee goal dates are aggressive in terms of the amount of time we spend working a product application.

I think where we could all have an impact is trying to make sure that the clinical development process itself related to new medical technologies is as efficient as possible. So when we're looking at clinical trials, we're looking at the requirements that are being imposed on sponsors and investigators who are developing new products. We're incorporating good science into those, we're adopting good clinical trial methodologies to make it as efficient as possible so that we're not needlessly adding cost to the clinical development process and not getting a return in terms of better assurance of safety and effectiveness.

So I do think that there are things FDA can do since a lot of what product developers do in the clinical development process is driven by FDA requirements. I do think that there are things FDA could do in terms of how it lays out its own guidelines that can help drive efficiencies in that process. And we've laid out some of those. We've looked at issues of how we can improve the design of clinical trials, how we can better incorporate things like modeling and simulation, how we can use registries and historical data to model placebo in certain instances, some of the scientific reforms that we can start to better incorporate into the development process.

But we're certainly going to have more to say on that. There is more policies that we plan to lay out in the near future where we think that there might be things we can do both from the standpoint of how the Agency structures its review process, but more importantly the kind of guidance we give the product developers to make that process more efficient.

So for example, we're going to be putting out a suite of product-specific guidances on the new drug side of the house pretty shortly, before the end of the year, about ten new guidances that are going to address different diseases, different areas of unmet medical need that I think are going to lay out more modern approaches to how people can develop products against those disease areas.

MS EDNEY: Could you give us a small preview of the ten guidances?

COMMISSIONER GOTTLIEB: Five of them are a suite of guidances that are going to address various neurological disorders, many of which are unmet medical needs. And the others are going to address discrete diseases in other areas.

MS EDNEY: How is the chronic staff shortage impacting the goals that you're trying to accomplish?

COMMISSIONER GOTTLIEB: We recently announced a hiring pilot within the Office of the Commissioner to try to address some of the challenges with onboarding people, particularly when it comes to people with clinical and scientific expertise. The HR process can sometimes be slow. Clinicians who have a lot of expertise who might have competing job offers might not wait six or eight months for FDA to work through the process. And so, the goal of the new hiring pilot is to try to make that process much more efficient so that we can move more quickly on new hires.

And so, we've focused that initially on the user fee slots. And so, these tend to be the medical review slots paid for by user fees. We felt that that was an area, sort of a discrete area where we could try out a new methodology with respect to how we were going to approach hiring. I think we've made a lot of progress. We'll be reporting on results soon. I have a blog ready to go out at some point in the next month to highlight some of the progress we've made on the hiring pilot. And to the extent those are successful approaches to onboarding people, I think we're going to try to expand that more Agency-wide.

I'd also just mention that we've had a lot of new authorities, particularly in the Cures Act that gave FDA very targeted hiring authorities to bring on people with certain kinds of scientific expertise, including the ability to pay people additional salaries if they have expertise that is very particular to an area of science that FDA needs.

One of the challenges I think we face going forward is that the kinds of products we're being asked to evaluate are so complex that there's a small subset of people nationally who have the kind of expertise sometimes required when you look at things like gene therapy or CAR-T, some of the new platform technologies.

And so, the ability to have some additional resources that we can target to try to onboard people with expertise in very discrete areas is going to be a real added value. And so we're very grateful for Congress for designing that pathway.

MS EDNEY: On drug pricing: Some members of Congress have once again brought

up the idea of importing cheaper drugs from Canada. Has the FDA taken a look at this since? Or does it plan to since the FDA can make the decision to declare re-importation?

COMMISSIONER GOTTLIEB: As you know, under current law the Secretary of Health and Human Services can make a declaration drugs that would be imported in sort of a broad fashion can be imported, so long as the Secretary can certify that it's not going to have an impact on safety and it's going to promote access. I don't know the exact codified language around that, but it's something to that effect. And no secretary has been able to make that determination through successive administrations, both Republican and Democrat. We haven't taken a look at that question recently. We certainly would if we were asked to.

I will say that the challenges that have faced FDA in the past when it's contemplated this question, particularly the issue around the security of the supply chain, the sophistication of counterfeit drugs, have only grown in proportion and increase the challenge potentially to try to operationalize such a thing. But if we were asked to do it, we certainly would reevaluate the question as other FDA administrations have through both Republican and Democrat administrations, including during the Bush administration when I was at the FDA.

MS EDNEY: What have you heard so far from tobacco companies about the plan to eventually reduce nicotine levels in cigarettes to non-addictive levels? And what is a realistic timeline for this effort?

COMMISSIONER GOTTLIEB: I haven't spoken directly to industry. We're going to be announcing soon, so I might as well do it now, that we're going to be having meetings with stakeholders in this community. So that's going to include public health groups, who have a long history of working in tobacco control. It's going to include some of the trade associations. It's going to include a small subset of some of the large companies as well.

So now that we've announced this process and we're going through a rulemaking process, when we do promulgate our advanced notice of proposed rulemaking, we will start to take meetings with stakeholders and hear from them. There'll be listening sessions. So that'll be my first opportunity to hear directly from some of the companies. All I've heard so far is what I've read in the press, thanks to all the journalists in the room.

In terms of a timeframe, I'll just say that when we announced this policy at the outset, what we said our goal was to advance the advanced notice of proposed rulemaking addressing nicotine in combustible cigarettes before the end of this year. I believe we will stay on that schedule. So my goal is and my hope is that we will be able to publish an advanced notice of proposed rulemaking before the end of this year.

MS EDNEY: In an op-ed a few years ago, you criticized an expansion of tobacco product regulation to the making of high-end hand-rolled cigars saying that it would be beyond what Congress had envisioned and would threaten small businesses. Do you still believe that there should be an exemption from regulation for premium cigars? And if so, how can the Agency make sure they are not regulated in the same way as cigarettes?

COMMISSIONER GOTTLIEB: Well, I'm not sure if that's selectively quoted. I vaguely remember the article. [laughter] I'll let you have that characterization of the op-ed. I will say, and this isn't a copout, we've undertaken a process now where we've said that we're going to issue an advanced notice to re-ask questions around, in particular around cigars, premium cigars. So with the newly deemed products– all the regulations that apply to the newly deemed products continue to go forward. So the newly deemed products include things like hookah, the ENDS, electronic cigarettes and cigars. And there's a lot of regulation around those newly deemed products that once they were deemed they were subject to certain regulations – restrictions on sales to youth, certain requirements on labeling. FDA does GMP inspections of facilities. We're continuing to do that.

We pushed off product application deadlines for certain of the newly deemed products, in particular to allow the ENDS to continue to advance while we got in place foundational regs that would define how we would require product applications to come in to FDA. Because the feeling was that at the same time that we are moving to render cigarettes minimally or non-addictive and regulate nicotine in combustible cigarettes, we need to think about what the alternative's going to be for people who still want to get access to satisfying levels of nicotine; adults who still want to get access to nicotine. And the ENDS do offer one possible alternative that could potentially be safer. I say potentially and possible because it needs to be put through an appropriate series of regulatory gates. And that's what we intend to do through the product application process.

And so, the regulations that we're going to advance are going to lay out what that product application process is. The foundational regulations for the tobacco program were never put in place. And so, we're going to take the time to put those in place so we have a firm foundation on which to regulate.

With respect specifically to premium cigars, as part of our announcement we said that we were going to put out an advanced notice of proposed rulemaking to re-ask questions about whether not the use patterns of premium cigars replicates other forms of combustible tobacco. We are in the process of drafting that ANPRM. We plan to issue it shortly. We recently published some scientific analysis that the Agency did with respect to this question. That will be part of the ANPRM and help inform the questions that we ask.

But I won't answer the question because we're entering the rulemaking process. [laughter]

MS EDNEY: Opioid addiction or obesity epidemic, which one keeps you up at night?

COMMISSIONER GOTTLIEB: Look, it's hard to equate one dramatic public health challenge with another, so I don't want to get into a position of trying to say this is worse than this. I think everything is horrible if you're the family that's suffering from one of these public health challenges. But I will say that I think that the opioid epidemic is a unique threat to the country and requires very dramatic action on the part of public health authorities to get in front of this. I think we've watched over a 10- or 15-year period this epidemic grow

in proportion, even as we tried to take measures to intervene in various ways, the epidemic was always five steps ahead of us, and always growing well out of proportion, I think, of what anyone anticipated.

And so, to try to get ahead of it now, I think we need to be willing to take much more dramatic action, be much more potentially intrusive than what we thought we might have to do and what would have been our comfort zone five years ago or ten years ago having failed to intervene hard enough, perhaps at times when we might have had an opportunity to quell this epidemic, or at least stem its continued spread. And I was at FDA for part of this period of time and was part of the people who were in government who were analyzing this and trying to consider what action would or wouldn't have been appropriate. But having failed to recognize how this epidemic was going to grow in proportion and take vigorous enough action, I think now we need to be willing to be far more vigorous so we don't continue to make that mistake.

MS EDNEY: Among those vigorous actions, you've asked that one opioid be pulled from the market for its risk of abuse being higher than its benefit. Are you going to be asking more companies to do the same?

COMMISSIONER GOTTLIEB: Obviously I'm not going to speak to individual product-specific issues. I will say though that we're looking much more closely at this question of illicit use as a component of how we look at risk/benefit. And I'm not going to try to relitigate the Agency's posture historically and whether the Agency was or wasn't looking at this question. I will just tell you going forward this is going to be a more prominent part of how we think about risk/benefit when it comes to opioids in particular; scheduled drugs, but opioids in particular.

And what made the decision to ask for the withdrawal, the market withdrawal of Opana ER unique was that it was based solely on a consideration of the risk of the illicit use. We found that the way that product was being abused relative to the way other products were being abused was creating some very unique risks. There was an excipient in the product, in its formulation that when it was reformulated and abused and injected, it was causing autoimmune phenomena. And we also believe that the product, because of the way the product had to be manipulated to be abused lent itself more towards abuse through injection routes. And so, the epidemiological pattern showed a higher proportion of abuse through injection and that had led, as you know, tragically to outbreaks of Hepatitis C and HIV.

And so, that regulatory action was based solely on a consideration of the risks associated with the illicit use of that drug, not with the labeled use of that product.

MS EDNEY: Thank you. You said you'd be meeting with insurers to talk about limiting the number of opioid prescriptions that people can get. So how have those talks gone? Can we expect FDA to add any guidance to opioid labels soon?

COMMISSIONER GOTTLIEB: We've been having those discussions. We've also been having discussions, I would note, with provider groups. We've put out a Federal

Register notice requesting comment and advice and ideas on how we might take steps to try to better effect how drugs are dispensed. So there's different constructs that we could potentially pursue that relate to how we can change labels, how we can change packaging.

So let me give you sort of a hypothetical construct. And I know it's dangerous for me to give hypotheticals. We've talked about the packaging as one vehicle. So let's say we have a construct where immediate-release formulations of opioids– so 90% of all opioid utilization is immediate-release formulations – Vicodin, Percocet – about 190 million prescriptions a year. Most people, their first exposure to opioids will be through an immediate-release formulation. If they become addicted, oftentimes they'll move on to higher dose formulations, start to manipulate them, and eventually move on to the low cost alternatives, which are increasingly street drugs.

Think of a world where we might package immediate-release formulations in, I don't know, say three-, six- and nine-day packs; you have blister packs like sometimes you take for your antibiotics or a Prednisone pack, a steroid taper. And so you might dispense opioids in packs that comport with clinical guidelines on what a proper dispensing should be. So let's say we work with a dental association, or orthopedists, other physician groups to develop expert guidelines on what proper dispensing should be for different kinds of clinical procedures. And then we incorporate that into labeling, and then we use that as a way to help manage what gets dispensed for different clinical indications.

So that's a world where you could see trying to line up the way drugs are packaged with expert guidelines on what the proper dispensing should be in different clinical circumstances. Then you might be able to marry that to an educational requirement, that if a doctor wants to prescribe a 30-day supply because they're a doctor that sees a lot of patients who have chronic pain conditions – they might work in oncology, they might be a palliative care doctor – maybe at that point you require the mandatory education.

So you start to see how these different things that we're thinking about – packaging, working with the provider groups to try to develop expert guidelines, working with groups that could help us think about educational requirements – how they start to marry up into a more comprehensive scheme, if you will, that I think might be able to get us to a place where we can better rationalize prescribing through the tools that FDA has available to it.

MS EDNEY: The President passed an executive order mandating that each new regulation must be accompanied by removing two old regulations. How has this impacted the FDA?

COMMISSIONER GOTTLIEB: Well, each new regulation that costs. A lot of our regulations are deregulatory, actually, in terms of how they get scored. A lot of times when we issue a regulation, we're updating standards in a way that actually can potentially create efficiencies in the development process. We actually deregulate by regulating, by issuing regulations. It's something unique about FDA. And this isn't some magical construct we've adopted over the last six months; this is basically FDA's operating platform.

This is always the case, that a lot of our regulations, when looked at from the basis of whether or not they're regulatory and add to costs, or deregulatory in so far as they will help save money, a lot of our regulations historically have gotten scored as regulations that save. And so, to the extent that we do have regulations that add to costs, or where the costs outweigh the benefits, that's basically what you're looking at when you do the economic analysis.

I feel pretty comfortable that we're going to be able to find ways to marry things that we might think are outdated and might want to potentially withdraw with things where we have to advance regulations that are going to cost money in terms of situations where the costs are going to outweigh the benefits of a regulation. But we believe there's an overriding public health purpose in advancing the regulation.

We have a lot of regulations that are from the 1970s and 1980s that just really, they're not even relevant anymore and they're just sort of ignored or not followed. And we have regulations, we regulate in areas where we might be able to create efficiencies, where the FDA might be able to rethink its whole paradigm. We publish regulations, literally probably hundreds of regulations that are standards of identity that are basically recipes for how you develop a certain food. So we have a recipe for what peanut butter needs to be to be called peanut butter, what mayonnaise needs to be called mayonnaise. Some of those are very important because they provide a foundational element for how important products are made. If you're going to call something peanut butter, it should have peanuts in it. [laughter] But some of them are things like– I've used this example before: we have a regulation that's a standard or identity for cherry pie. That's something that we might be able to look at. I'm not sure FDA, as we're grappling with all these other public health issues, needs to be redefining the standard for what constitutes cherry pie. Some element of cherries is good. [laughter] And there should be a crust.

MS EDNEY: But does there *really* need to be a crust? Switching topics a little bit, any thoughts on the GOP tax bill, particularly on repealing the orphan drug tax credit.

COMMISSIONER GOTTLIEB: Look, I'm not going to drive outside my lane. As far as the orphan drug tax credit, I've seen some of the reporting on it and it's been a question that's been put to me. I haven't taken a look at it in terms of what the specifics are and what impact it could potentially have. So I'm not going to comment.

MS EDNEY: Birth control is over-the-counter in many countries. Why has the FDA not approved an over-the-counter birth control yet to ease access for women?

COMMISSIONER GOTTLIEB: This is a question that's come up in the past. You know there's been presidential candidates on both sides of the aisle that have advocated OTC birth control. As best I know, this question hasn't been put before FDA where it's gone to an advisory committee. I don't think that this is something that's been put forward in a way where it's advanced through the Agency. I know in the past some of the provider groups have been against it; I don't know where they stand today. But like any other application, if we received a request on a switch, we would evaluate in the same way we would evaluate

anything else.

MS EDNEY: As a policy, the FDA currently does not comment on any product that is currently under review. But as a result, the company behind the product is the only available voice on how their product is performing. Which means that they can say "the FDA says it is promising," or, "it will soon be approved," and there's no way to verify that. How can the FDA address this issue?

COMMISSIONER GOTTLIEB: That's not entirely true because if a product's investigational, what's relevant from a public health standpoint is that the investigators are made aware of information that could be relevant to the patients that are enrolled in a clinical trial, as well as the IRB. And the IRB is kept informed of the progress of the trial, has information made available to it. When the IRB thinks the investigators should be informed of something, that happens. So there is a process in place that protects patients that are enrolled in the clinical trial. So the public health is being protected in that manner.

But there's a larger question, I recognize. There's a question of, if a product's under review and something's happening in the context of that product, that could inform a product that's on the market that's a similar product. Shouldn't patients who are on a similarly marketed product know that something that was learned in the context of a product that's under review might tell them something important about a product that they're using? In that case, here again we have the ability to inform the public. We could issue a public health advisory or some kind of notice if FDA learned something in the context of a clinical trial that we think is relevant to a marketed product.

There is a third element to this with respect to investors. And I suspect the question came in that context, that if a company makes claims about the performance of product in a clinical trial to the investment community, could investors be misled. And I'll just say with that, here again there's a construct in place that helps speak to that issue. FDA does have an MOU, memorandum of understanding, in place with the SEC. FDA routinely has dialogue with the SEC. That dialogue is sometimes initiated by representations that management will make to the public markets where FDA will know there's a conflict or there's an untruth or purported untruth. And I know that there have been SEC actions taken on the basis of referrals that have been made by FDA.

MS EDNEY: Here's a company-specific question, a little tougher: How do you respond to people concerned that your ties to industry could give device makers and drug companies too much influence at the expense of patient protections?

COMMISSIONER GOTTLIEB: I think my experience, having worked on both sides of this – working in the venture capital community helping to develop novel technologies, and a lot of my work was related to small companies, new technologies, as well as my experience currently and in the past working on the regulatory side – has informed my perspective in ways that I think are helpful. Others can judge that differently. I judge it in a certain way; I think it helps inform my view. I feel that I draw upon my experience in the private sector all the time in terms of how I think of challenges inside the Agency.

As far as relationships and whether or not relationships in the past are influencing my current work, obviously we've been vigilant about making sure if I'm recused from a company we respect the recusals. And I will tell you, just as a matter of routine it's rare that I take meetings with individual sponsors. I think my public calendar demonstrates that. It's rare that I would adjudicate or be involved in a product-specific issue.

Generally what I work on in this role – and I think someone in this role should be worrying about and working on, because there are a lot of things to worry about, I'll tell you – is matters of broad and general policy that can affect a lot of lives. And there's a lot of those. I try to focus my attention on places where I can have the most impact to make sure I'm using my own personal resources efficiently, just like I'm asking the Agency to use its resources efficiently. And that's generally where I've spent my time.

MS EDNEY: On recusals, you had said you would recuse yourself from dealings with 20 companies that you'd had relationships with for one year. The question is, why just one year? Why not for the whole time you run the FDA?

COMMISSIONER GOTTLIEB: The one year was out of the ethics pledge, as you know. I've complied with all the requirements that were asked of me, including the ethics pledge that the Trump administration asked all senior political appointees to sign. So that ethics pledge, which was obviously signed after I went through the whole confirmation process – because you sign it on your first day on the job – has recusal requirements that exceed the one year.

So I would encourage people to look at that because I think it's sort of not fully informed because the new ethics requirement does place a higher burden on people.

MS EDNEY: Do you believe FDA should have authority to regulate prices of therapies, as well as safety and effectiveness?

COMMISSIONER GOTTLIEB: Well, this gets to the question of drug pricing. I've said I think FDA does play a role in this debate. And I've said that I think issues of access, and to the extent that pricing affects issues of access, I think are matters of public health concern that the Agency ought to concern itself with. Where we've been on this debate is looking at ways that we can try to promote competition in the market. We've talked a lot about what we're doing on the generic drug side to effect that. There's also going to be things that we do on the new drug side that try to impact that, particularly looking at areas where there's single-source drugs and are there things that we can do to help promote competition in those categories so that if you do have an area where there's a monopoly and a company has a very innovative therapy and brings it to market, enjoys a period of monopoly profits because they've done something highly innovative, very breakthrough, especially when they're delivering benefits to patients with unmet needs. But you also want to see competition enter those categories. And so, to the extent we can look on the new drug side of our house as well and ways that we can try to promote competition, we're going to be looking at those things as well.

But a lot of our early work is focused trying to promote more generic competition, particularly around places where we see branded companies gaming our rules in ways that forestall intended competition; so, situations where exclusivity has lapsed, Congress intended for there to be vigorous generic competition, but you don't see generic competition entering the market because branded companies have adopted certain tactics that prevent that competition from entering the market.

The one that I'm most concerned about is situations where I see branded companies taking steps to block generic companies from getting access to the doses of the drugs they need to actually run their bioequivalent studies to apply for generic approval. Here we have a system Congress created where Congress said to the generic companies, "In order to get to the market you have to do a bioequivalent study and file it with FDA." And the generic companies say, "Okay, we'll do those studies, we'll make the investment." Then they go out into the market with their own cash and they're willing to pay fair market value to buy the branded drugs so they can run the comparison studies and they can't get the drug, because the branded companies adopt anti-competitive tactics to prevent them from getting access to those drugs. I think that's a real problem.

We've seen some of our own policies be used in ways to do that, to frustrate that. I believe the REMS is sometimes used as a way to do that. The risk management plans that we impose where we require companies to place on their drugs as a way to provide for the safe use of a product are being used also to block that sale. And it takes anywhere between 2000 and 5000 doses of a branded drug in order to run a bioequivalent study to compare your generic drug to the branded drug.

But the other place we see these activities don't all fall within the direct purview of FDA. Oftentimes we see branded companies selling drugs through a very tight supply chain. So they might sell it through a single-specialty pharmacy where they tightly control who the drug can be sold to and have, we believe, I believe – I'll say I believe – I believe they have rules in place that make it difficult for the pharmacy or the distributor, whoever's handling the drug, to actually make the sale to a generic company or a sale in a bulk fashion to a generic company.

So we're looking at things that we might be able to socialize because this wouldn't necessarily be directly in FDA's purview, but I'm certainly willing to think in ways that we can collaborate with other agencies, for example, to try to address this. Because we obviously, as an Agency that tries to promote drug access and competition through the safe and effective use of generic drugs, we have an interest in seeing that the bioequivalent studies can get done. We want companies to be able to come in to us and file those applications. And if they come to us, as many have, and say, "We can't even get access to the drugs to do it, even though we're willing to pay full price," that's a problem. So we've talked about potentially allowing them to go to Europe to buy the drugs. But we're going to look at this question very hard.

MS EDNEY: Some medical device CEOs say potential cybersecurity vulnerabilities

are the top issue that keeps them awake at night. And analysts say it's just a matter of time until someone is seriously hurt or worse. What is your take on this issue, and what are you doing about it?

COMMISSIONER GOTTLIEB: We just put out some information this week – I would encourage everyone to take a look at it – that summarizes a lot of the activity that we're undertaking to address this. I think upwards of 90% of medical devices that are approved – I think it's probably PMA devices – have some component of a cybersecurity evaluation. And so, we're working with sponsors. We've laid out guidance on how they can evaluate the network security of devices. And we are encouraging the sharing of information that can help inform how product developers can develop products that put in place safeguards to address this vulnerability. We're well aware of it. We're concerned about it. I think that we've been pretty proactive in trying to address it as a component of how we go about evaluating medical devices.

People think it's– they watched *Homeland* and they think it's a pacemaker. A lot of times this relates to large medical equipment that might be in a hospital and it relates to issues of being able to bring down a device so it's not available, rather than just affect its performance, actually take it down, if a device is networked. We've seen that in certain situations.

And so, this spans a pretty big continuum of potential concerns.

MS EDNEY: Before the last question, I have one programming note. Sorry, I'm going to reach across you very quickly. At the National Press Club, we'd like to invite you to please join us on Monday. We'll be hosting for a luncheon the US Secretary of Veterans Affairs, David Shulkin. So please put that on your calendars and join us if you can.

COMMISSIONER GOTTLIEB: I notice that David's sold out. There was a big red X over his face. [laughter] At first I saw the red X and I said, I'm glad I didn't get a red X. [laughter] But then I saw what it meant.

MS EDNEY: Well, this is a very good crowd as well, this is great. [laughter] Last question: You used to make your own syrup, and now you raise chickens. Why is that? Are you manufacturing unregulated vaccines on the side? [laughter]

COMMISSIONER GOTTLIEB: The maple syrup operation in my house isn't subject to FDA regulation because I don't do it in an adjacent facility. If you look at the regulations. And with the eggs and the chickens, we don't regulate the chickens, and the egg we only regulate when it's cracked. [laughter] I just want you to know I comply with all the relevant rules. Sonny Perdue regulates most of what I do over at USDA. We like fresh eggs. [laughter] And the kids like it. So it's a lot of fun. We've enjoyed them. Thanks.

MS EDNEY: Before you leave, we would like to present you with our mug from the National Press Club. Every speaker gets one. We hope that you use this in good health. Thanks very much.

COMMISSIONER GOTTLIEB: Thanks, I appreciate it. [applause]

MS EDNEY: [sounds gavel] And that concludes our luncheon today. Again, thank you, everyone, for coming.

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